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Title: **JP7029563A2: BATTERY SEPARATOR AND LITHIUM BATTERY USING THE SAME**

Derwent Title: Porous film or sheet of high molecular weight polyethylene - produced by plasticised melt extrusion, melt drafting and solvent leaching of plasticiser  
[\[Derwent Record\]](#)

Country: **JP Japan**Kind: **A** (See also: [JP3050021B2](#) )

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Published / Filed: **1995-01-31 / 1993-11-05**

Application Number: **JP1993000276947**

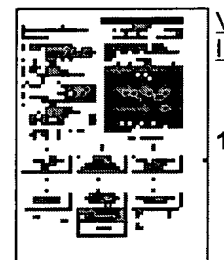
IPC Code: **H01M 2/16; H01M 2/18; H01M 6/14; H01M 10/02;**Priority Number: **1993-05-11 JP1993000109619**

Abstract: **PURPOSE:** To prevent the overheating of the battery by using as a separator a porous film or sheet made of ultrahigh molecular weight polyethylene having a viscosity average molecular weight of a value greater than that specified, the film or sheet having a specified thickness, air permeability, hole percentage, pin piercing strength, thermal blockage temperature, and thermal film breakage resistance temperature.

**CONSTITUTION:** As an ultrahigh molecular weight polyethylene, polyethylene having a viscosity average molecular weight of 500,000 or more and, as a plasticizer added thereto, paraffin wax, n-alkane, or the like which has compatibility with the ultrahigh molecular weight polyethylene and which does not evaporate during melt-kneading or forming is used. The polyethylene and plasticizer are kneaded together and are melt-extruded to make a film or a sheet. As a result, a separator with a high resistance to thermal film breakage which has a thickness of 10 to 100µm, an air permeability of from 20 to 2000sec/100cc, a hole percentage of 15 to 80%, a pin-piercing strength of 120g/25µm or more, and a thermal film breakage temperature of 160°C or more is provided.

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PDF	Patent	Pub.Date	Inventor	Assignee	Title
	<a href="#">US6586912</a>	2003-07-01	Tsukamoto; Hisashi	Quallion LLC	<a href="#">Method and apparatus for amplitude limiting battery temperature spikes</a>

⌚ Other Abstract  
Info:

CHEMABS 121(26)302605X DERABS C94-201615

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**PATENT ABSTRACTS OF JAPAN**(21) Application number: **05276947**(51) Intl. Cl.: **H01M 2/16 H01M 2/18 H01M 6/14**  
10/02(22) Application date: **05.11.93**(30) Priority: **11.05.93 JP 05109619**(43) Date of application  
publication: **31.01.95**(84) Designated contracting  
states:(71) Applicant: **mitsubishi chem corp**(72) Inventor: **FUJII TOSHIO**  
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(74) Representative:

**(54) BATTERY SEPARATOR  
AND LITHIUM BATTERY  
USING THE SAME**

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